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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,303	02/26/2002	Walter F. Rausch	1602	5541

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EXAMINER	
FOX, BRYAN J	

ART UNIT	PAPER NUMBER
2686	

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/083,303	RAUSCH ET AL.	
	Examiner	Art Unit	
	Bryan J. Fox	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5,6,8-15,17,18 and 20-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,6,8-15,17,18 and 20-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 16, 2005 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 2, 5, 10, 13, 14, 17 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kostreski et al in view of Hemmie et al (US005437052A).

Regarding **claim 1**, Kostreski et al discloses a method for transmitting information from multiple spaced transmitting sites to multiple receiving sites in a reception area (see column 5, lines 6-10), which reads on the claimed "omni-directional transmitting antenna at a first location; a transmitter connected to the transmitting antenna and configured to transmit first wireless signals via the transmitting antenna."

A central antenna Tp broadcasts in an omni-directional propagation pattern (see column 9, lines 24-29), which reads on the claimed, "omni-directional transmitting antenna at a first location." At most receiver locations, a directional antenna having a narrow field of view is aimed to receive a strong line of sight transmission, but, due to overlapping, many locations will receive signals from a plurality of transmitters (see column 10, lines 12-19) and the directional antenna may have approximately a 12 degree field of view (see column 5, lines 64-67), which reads on the claimed "directional receiving antenna at the first location wherein an angle of the directional receiving antenna is less than forty five degrees and the directional receiving antenna is directed toward an angular area of less than forty five degrees" and "a receiver connected to the directional receiving antenna and configured to receive second wireless signals via the directional receiving antenna". The terminal 100 is a digital entertainment terminal DET and includes a transport interface module (see column 19, line 66 – column 20, line 24). The DET is connected to the receiver and the transmitter via the receiver (see figure 7), which reads on the claimed "communication interface connected to the transmitter, the receiver, and a communication network and configured to provide the communication services between the communication network and the user communication devices". The system may be used in MMDS type service implementations (see column 5, lines 36-42), which reads on the claimed "the second wireless signals are in the Multichannel Multipoint Distribution Service (MMDS) frequency range". Kostreski et al fails to disclose a transmitting antenna at the same location as the receiving antenna.

In a similar field of endeavor, Hemmie et al discloses an MMDS receiving antenna and allows the stations to transmit data back to the common transmitting antenna (see column 4, lines 4-18), which reads on the claimed invention that has the transmitter and receiver at a first location.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kostreski et al with Hemmie et al to include the above transmitter with the receiver in order to provide a return path back to the source of programming as suggested by Hemmie et al (see column 1, line 57 – column 2, line 45).

Regarding **claim 5**, Kostreski et al discloses a method for transmitting information from multiple spaced transmitting sites to multiple receiving sites in a reception area (see column 5, lines 6-10), which reads on the claimed "communication system for providing communication services to user communication devices". A central antenna Tp broadcasts in an omni-directional propagation pattern (see column 9, lines 24-29), which reads on the claimed, "omni-directional transmitting antenna at a first location; a transmitter connected to the transmitting antenna and configured to transmit first wireless signals via the transmitting antenna." At most receiver locations, a directional antenna having a narrow field of view is aimed to receive a strong line of sight transmission, but, due to overlapping, many locations will receive signals from a plurality of transmitters (see column 10, lines 12-19) and the directional antenna may have approximately a 12 degree field of view (see column 5, lines 64-67), which reads on the claimed "directional receiving antenna at the first location wherein an angle of the directional receiving antenna is less than forty five degrees and the directional receiving

antenna is directed toward an angular area of less than forty five degrees" and "a receiver connected to the directional receiving antenna and configured to receive second wireless signals via the directional receiving antenna". The terminal 100 is a digital entertainment terminal DET and includes a transport interface module (see column 19, line 66 – column 20, line 24). The DET is connected to the receiver and the transmitter via the receiver (see figure 7), which reads on the claimed "communication interface connected to the transmitter, the receiver, and a communication network and configured to provide the communication services between the communication network and the user communication devices". Kostreski et al fails to disclose a transmitting antenna at the same location as the receiving antenna and the use of MDS wireless signals.

In a similar field of endeavor, Hemmie et al discloses a receiving antenna and allows the stations to transmit data back to the common transmitting antenna (see column 4, lines 4-18), which reads on the claimed, which reads on the claimed invention that has the transmitter and receiver at a first location. Hemmie et al further discloses the use of MDS (see column 7, lines 1-15).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kostreski et al with Hemmie et al to include the above transmitter with the receiver and use of MDS in order to provide a return path back to the source of programming as suggested by Hemmie et al (see column 1, line 57 – column 2, line 45) and to take advantage of the reserved MDS frequencies.

Regarding **claim 13**, Kostreski et al discloses a method for transmitting information from multiple spaced transmitting sites to multiple receiving sites in a reception area (see column 5, lines 6-10), which reads on the claimed "method for providing communication services to user communication devices". A central antenna Tp broadcasts in an omni-directional propagation pattern (see column 9, lines 24-29), which reads on the claimed "omni-directional transmitting antenna at a first location; a transmitter connected to the transmitting antenna and configured to transmit first wireless signals via the transmitting antenna." At most receiver locations, a directional antenna having a narrow field of view is aimed to receive a strong line of sight transmission, but, due to overlapping, many locations will receive signals from a plurality of transmitters (see column 10, lines 12-19) and the directional antenna may have approximately a 12 degree field of view (see column 5, lines 64-67), which reads on the claimed "receiving second wireless signals into a receiver via a directional receiving antenna at the first location wherein an angle of the directional receiving antenna is less than forty five degrees and the directional receiving antenna is directed toward an angular area of less than forty-five degrees". The terminal 100 is a digital entertainment terminal DET and includes a transport interface module (see column 19, line 66 – column 20, line 24). The DET is connected to the receiver and the transmitter via the receiver (see figure 7), which reads on the claimed "in a communication interface, providing communication services between a communication network and the user communication devices wherein the communication interface is connected to the transmitter, the receiver, and a communication network". The system may be used in

MMDS type service implementations (see column 5, lines 36-42), which reads on the claimed "the second wireless signals are in the Multichannel Multipoint Distribution Service (MMDS) frequency range". Kostreski et al fails to disclose a transmitting antenna at the same location as the receiving antenna.

In a similar field of endeavor, Hemmie et al discloses an MMDS receiving antenna and allows the stations to transmit data back to the common transmitting antenna (see column 4, lines 4-18), which reads on the claimed, which reads on the claimed invention that has the transmitter and receiver at a first location.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kostreski et al with Hemmie et al to include the above transmitter with the receiver in order to provide a return path back to the source of programming as suggested by Hemmie et al (see column 1, line 57 – column 2, line 45).

Regarding **claim 17**, Kostreski et al discloses a method for transmitting information from multiple spaced transmitting sites to multiple receiving sites in a reception area (see column 5, lines 6-10), which reads on the claimed "method for providing communication services to user communication devices". A central antenna Tp broadcasts in an omni-directional propagation pattern (see column 9, lines 24-29), which reads on the claimed "omni-directional transmitting antenna at a first location; a transmitter connected to the transmitting antenna and configured to transmit first wireless signals via the transmitting antenna." At most receiver locations, a directional antenna having a narrow field of view is aimed to receive a strong line of sight transmission, but, due to overlapping, many locations will receive signals from a plurality

of transmitters (see column 10, lines 12-19) and the directional antenna may have approximately a 12 degree field of view (see column 5, lines 64-67), which reads on the claimed "receiving second wireless signals into a receiver via a directional receiving antenna at the first location wherein an angle of the directional receiving antenna is less than forty five degrees and the directional receiving antenna is directed toward an angular area of less than forty-five degrees". The terminal 100 is a digital entertainment terminal DET and includes a transport interface module (see column 19, line 66 – column 20, line 24). The DET is connected to the receiver and the transmitter via the receiver (see figure 7), which reads on the claimed "in a communication interface, providing communication services between a communication network and the user communication devices wherein the communication interface is connected to the transmitter, the receiver, and a communication network. Kostreski et al fails to disclose a transmitting antenna at the same location as the receiving antenna and the use of MDS.

In a similar field of endeavor, Hemmie et al discloses a receiving antenna and allows the stations to transmit data back to the common transmitting antenna (see column 4, lines 4-18), which reads on the claimed, which reads on the claimed invention that has the transmitter and receiver at a first location. Hemmie also discloses the use of MDS (see column 7, lines 1-15).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Kostreski et al with Hemmie et al to include the above transmitter with the receiver and the use of MDS in order to provide a return path back

to the source of programming as suggested by Hemmie et al (see column 1, line 57 – column 2, line 45) and to take advantage of the reserved MDS frequencies.

Regarding **claims 2 and 14**, the combination of Kostreski et al and Hemmie et al discloses that the invention may be used in MMDS type service implementations (see Kostreski et al column 5, lines 36-42), which reads on the claimed "the first wireless signals are in the Multichannel Multipoint Distribution Service (MMDS) frequency range".

Regarding **claims 10 and 22**, the combination of Kostreski et al and Hemmie et al discloses that the directional receiving antenna may have approximately a 12 degree field of view (see Kostreski et al column 5, lines 64-67), which reads on the claimed "the angle of the directional receiving antenna is twelve degrees".

Claims 3, 6, 11, 12, 15, 18, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kostreski et al and Hemmie et al in view of the applicants admission of prior art.

Regarding **claims 3 and 15**, the combination of Kostreski et al and Hemmie et al discloses the use of Multichannel Multipoint Distribution Service (see Kostreski et al column 5, lines 36-42), however, the combination of Kostreski et al and Hemmie et al fails to expressly disclose the use of Multipoint Distribution Service.

The applicants discloses Multipoint Distribution Service under "Description of the Prior Art" on lines 4-11, page 4 of the application.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kostreski et al and Hemmie et al with the applicant's admission of prior art such that the system uses Multipoint Distribution Service in order to take advantage of the benefits of Multipoint Distribution Service such as increased bandwidth.

Regarding **claims 6 and 18**, the combination of Kostreski et al and Hemmie et al fails to disclose the use of wireless broadband routers.

The applicant acknowledges wireless broadband routers as prior art under "Description of the Prior Art" on lines 1-8 of page 5 of the application.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kostreski et al and Hemmie et al with the applicant's admission of prior art such that the system uses wireless broadband routers in order to send the data to the corresponding device.

Regarding **claims 11, 12, 23 and 24**, the combination of Kostreski et al and Hemmie et al fails to expressly disclose a downstream manager or an upstream manager.

The applicant acknowledges a head end including a downstream manager and an upstream manager as prior art under "Description of Prior Art" on page 4, line 26 – page 5, line 15 of the application.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kostreski et al and Hemmie et al with the

applicant's admission of prior art to include the use of head end in order to efficiently manage communications.

Claims 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kostreski et al in view of Hemmie et al as applied to claims 1 and 13 above, and further in view of Velazquez et al (US 20010003443A1).

Regarding **claims 8 and 20**, the combination of Kostreski et al and Hemmie et al fails to expressly disclose the use of a 36 degree antenna.

In a similar field of endeavor, Velazquez et al discloses the use of a 36 degree antenna (see paragraph 60).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kostreski et al and Hemmie et al to include the use of the 36 degree antenna in order allow the antenna to cover a larger area while maintaining enough gain.

Claims 9 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kostreski et al in view of Hemmie et al as applied to claims 1 and 13 above, and further in view of Leung et al (US006400697B1).

Regarding **claims 9 and 21**, the combination of Kostreski et al and Hemmie et al fails to expressly disclose the use of a 24 degree antenna.

In a similar field of endeavor, Leung et al discloses antenna beamwidths between 10 and 40 degrees (see column 8, lines 49-51).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Kostreski et al and Hemmie et al to include an antenna beamwidth between 10 and 40 degrees in order to customize the system to a particular application and provide the optimum amount of gain and coverage area.

Response to Arguments

Applicant's arguments filed June 16, 2005 have been fully considered but they are not persuasive.

The applicant argues that Kostreski et al does not have an omni-directional transmitting antenna and a directional receiving antenna in the same location and that Hemmie et al does not have an omni-directional transmitting antenna and a directional receiving antenna in the same location. The examiner agrees that neither reference discloses all the claimed limitations alone. However, the combination of Kostreski et al and Hemmie et al does disclose the claimed limitations. Specifically, Kostreski discloses an omni-directional transmitting antenna (see column 9, lines 24-29), and Hemmie et al discloses a transmitter and a receiver in the same location (see column 4, lines 4-18). The combination of Kostreski et al and Hemmie et al discloses all of the claimed limitations (see rejection of claims 1, 5, 13 and 17 above).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan J. Fox whose telephone number is (571) 272-7908. The examiner can normally be reached on Monday through Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bryan Fox
September 28, 2005

CHARLES APPIAH
PRIMARY EXAMINER